

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A method of measuring the height of a liquid using a high-frequency line probe (1), ~~characterized in that it consists in making~~ wherein there is implemented, on an electric circuit (3), ~~powered~~ supplied with a high-frequency alternating current, a comparison between the impedance of a coaxial or non-coaxial line probe (1) and a reference resistor (17), using a resistive measuring bridge (7), the probe (1) being submerged in a tank of fluid ~~of which the height of which~~ is to be determined forming one measuring arm of the measuring bridge and said reference resistor (17) forming an opposite arm of the measuring bridge, the comparison generating a comparison signal resulting from the alternate measurement of the signal on each of the measuring bridge arms using a ~~suitable~~ detector, and ~~[[in]]~~ through processing the comparison signal in order to obtain the calculation of the height of the liquid according to its permittivity, the length of the probe (1) and the circuit (3) power supply frequency.
2. (Currently Amended) The measuring method as claimed in claim 1, ~~characterized in that~~ wherein the probe (1) is formed by a ~~simple tube or~~ straight tube, rod or metallic wire of any type ~~and of straight line shape, extending over~~ which extends through the height of liquid in the tank ~~to be measured~~.
3. (Currently Amended) The measuring method as claimed in claim 2, ~~characterized in that the~~ length of the probe (1) is variable has a vertical length of from about 0.1 to 10m.

4. (Currently Amended) The measuring method as claimed in any one of the preceding claims, ~~characterized in that the power supply~~ wherein frequency ~~[[domain]]~~ of the high-frequency alternating current supply of the circuit (3) of the probe (1) is ~~variable~~ within the range from about 4 to 20 MHz.

5. (Currently Amended) The measuring method as claimed in ~~one of the preceding claims,~~ ~~characterized in that~~ claim 1, wherein the reference resistor (17) is ~~[[chosen]]~~ selected to be ~~roughly~~ approximately equal to that of ~~[[the]]~~ an impedance modulus of the probe (1) at a mid-height of the liquid contained in the tank.

6. (Currently Amended) The measuring method as claimed in ~~one of the preceding claims,~~ ~~characterized in that~~ claim 1, wherein the processing of the comparison signal is performed in two stages~~[[,]]~~ comprised of a logarithmic amplifier stage (9) followed by a terminal differential amplifier stage (11).

7. (Currently Amended) The measuring method as claimed in ~~one of the preceding claims,~~ ~~characterized in that it comprises~~ claim 1, comprising implementing a double synchronous switching (13), ~~on the one hand,~~ between the input (13a) of the logarithmic amplifier stage (9), and, ~~on the other hand,~~ between the output of the latter (13b) and the differential amplifier stage (11), so as to ~~use only~~ utilize a single logarithmic amplifier (9) for the first processing stage of the circuit.

8. (Currently Amended) The measuring method as claimed in claim 7, ~~characterized in that the~~ wherein alternating current measuring signals processed by the logarithmic amplifier (9) are received alternately via said synchronous switching on a capacitive circuit (15) with opposite branches (15a, 15b) at the input of the terminal differential amplifier stage (11), so as to be picked up and processed by the latter.

9. (Currently Amended) The measuring method as claimed in ~~either of claims 7 and 8~~ claim 7 or 8, ~~characterized in that~~ wherein said double synchronous switching (13) is controlled by a square signal pulse generator (19).

10. (Currently Amended) A probe used for measuring the height of liquids, in particular hydrocarbons in tanks, ~~characterized in that it~~ wherein said probe comprises an assembly consisting of an open-ended high-frequency line (1) submerged in the liquid and extending over the height thereof which is to be measured, and a circuit (3) with measuring bridge (7) and logarithmic (9) and differential (11) amplifier stages for ~~[[the]]~~ a resultingly processed line impedance signal.

11. (New) The measuring method as claimed in claim 1, wherein the liquid employed is a low-permittivity liquid.

12. (New) The measuring method as claimed in claim 1, wherein the liquid employed is a hydrocarbon in a liquid phase.